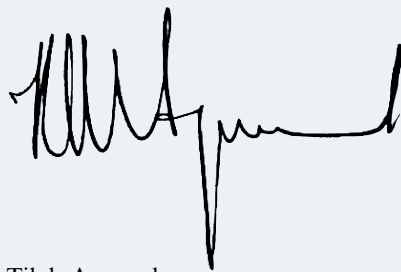

The Blue Gene program was announced in 1999, with the long-term goal of creating a petascale supercomputer to accelerate discovery in the life sciences. Five years later, the team of IBM researchers and developers, in collaboration with the Lawrence Livermore National Laboratory, has delivered a computer (Blue Gene/L) that not only ranks as the most powerful supercomputer in the world, but introduces dramatic reductions in power consumption, cost, and space requirements. A vigorous, innovative, collaborative scientific research program based on Blue Gene is now in place as well.

Blue Gene/L is a novel supercomputer that pushes the limits of parallel computing. Innovative technologies (low-power processors, embedded DRAM, system-on-a-chip, advanced power/packaging/cooling, special interconnect mechanisms, and scalable systems management) are intelligently integrated to produce a balanced supercomputer design that can be manufactured, deployed, and programmed “by the yard” in a highly scalable system.

Such performance scalability, flexibility, and innovative design opens the door to tackling a wide range of complex problems—not just in life sciences, but in many important scientific and commercial fields including materials sciences, molecular dynamics, fluid dynamics, climate modeling, and financial risk analysis.

Blue Gene is truly a breakthrough accomplishment; it represents innovation in the true sense of the word by establishing a new model by which supercomputing power can be applied to a wider array of difficult problems. We are well on the way to delivering petascale computing, accelerating scientific discovery, and tackling complex business problems.

I am proud to be associated with this innovative partnership, and I support the efforts of the many individuals in IBM and their colleagues at universities and national laboratories in this exciting venture.

A handwritten signature in black ink, appearing to read 'Tilak Agerwala', with a stylized, flowing script.

Tilak Agerwala
Vice President, Systems
IBM Research Division
